The Economic Impact of Cancer in Texas

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Hospital Inpatient Costs of Cancer in Texas

Report to the Texas Comprehensive Cancer Control Coalition by

The Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin and the

Texas Health Care Information Council

Researchers

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The Economic Impact of Cancer in Texas Hospital Inpatient Costs of Cancer in Texas

<u>Abstract</u>

This study examines hospital inpatient costs of cancer in Texas with special attention to colorectal, lung, breast, and prostate cancer. The research is based on data collected from Texas civilian hospitals about discharges of Texas residents during the period of January to March 1999. Costs for most hospitals were based on DRGs for the respective hospitals stays. The Texas Medicaid Adjusted Standard Dollar Amount for each hospital was multiplied by the Medicaid payment weight for each of the respective DRGs. For seven children's hospitals, charge information was adjusted by the Medicaid cost-to-charge ratios for the respective facilities.

The hospital inpatient cost of treating Texas residents with cancer among the discharge diagnoses was about \$1.85 billion in 1998, representing 12.3 percent of all hospital costs for all diseases. The cost of caring for patients with cancer as principal diagnosis was about \$1.05 billion. About 31 percent of hospital costs associated with cancer were for treating persons with colorectal, lung, breast, or prostate cancer. Details are provided in the report by demographic groups, by insurance coverage, and by Texas public health region.

<u>Introduction</u>

Cancer in the U.S. is thought to have accounted for 13.6 million days of hospitalization in 1993 at a cost of \$24.1 billion, and hospitalization accounted for almost two-thirds of the U.S. direct medical costs of cancer. Costs of hospitalization for cancer in Texas have not been clear. Williams and Begley produced estimates of Texas cancer hospitalization costs for 1988 (about \$700 million). However, they relied heavily on national data and recommended that, in the future, data more specific to Texas should be collected.²

Beginning in 1999, the Texas Health Care Information Council (THCIC) began collecting discharge data from most Texas hospitals, and the resulting database offers new opportunities for constructing estimates of the costs of hospitalizations associated with cancer. This report is based on that data, and its primary purpose is to estimate the hospital costs of cancer among Texas residents with special attention to colorectal, lung, breast and prostate cancer. This report also provides data on the demography of patients hospitalized with cancer and details on their health insurance coverage.

Methods

The data available for this study covered 610,000 discharges from 411 Texas hospitals from January through March 1999. Most Texas hospitals, including rehabilitation hospitals, participated. Certain facilities, including some small community facilities, military hospitals, and VA hospitals, did not participate. The non-participating community hospitals accounted for only 6 percent of the non-federal hospital beds in Texas. Thus, the data are believed to be reasonably inclusive with respect to civilian hospitals.

Within the database were 590,000 discharges of Texas residents as determined by zip code information. Of those patients, 50,349 discharges at 363 facilities had a diagnosis of cancer (ICDs 140-239), either as principal diagnosis or among eight secondary diagnoses. The reader should note that this definition of cancer includes both malignant and benign conditions, with the rationale that when benign tumors are associated with hospitalization, there is substantial likelihood that the hospitalization was for the purpose of treating pre-cancerous conditions, thus preventing emergence of malignant conditions.

The records for patients with cancer were assigned to colorectal cancer (ICDs 153-4), lung cancer (ICD 162), breast cancer (ICD 174), prostate cancer (ICD 185), or other types of cancer. When more than one category of cancer was present among the discharge diagnoses, priority was given to the type of cancer listed earliest among the nine possible diagnostic codes.

The database did not contain cost information. For most facilities, costs were estimated by multiplying the Medicaid Adjusted Standard Dollar Amount (ASDA) for each hospital by the Texas Medicaid DRG weight for FY 1998, depending on the DRG associated with each of the hospital stays. The Medicaid ASDAs were developed from analyses of costs of treating average patients at the respective hospitals. The DRG weights account for the complexity of the conditions of the various patients. A handful of hospitals were not Medicaid contractors and, for those, the Medicaid DRG weights were applied to the Standard Dollar Amounts (SDAs) for the respective facilities without considering the percentage discount factor which the Medicaid program negotiates with individual hospitals. Fifty-four cancer-related stays in the database had DRGs with a payment weight of zero. Costs for those stays were estimated on the basis of the average cost among stays for persons having the same type of cancer (lung, breast, prostate, colorectal, other). For cancer stays at seven children's hospitals, charge information was adjusted by each hospital's Medicaid cost-to-charge ratio for fiscal year 1998, including discount factors, to obtain an estimate of cancer costs.

Because information was available for only one calendar quarter (first quarter 1999), all figures in this report are annualized and reported for fiscal year (FY) 1998. While it is possible that the calendar quarter studied was unusual in some way, it seems unlikely that cancer admissions would follow any seasonal pattern.

Findings

On an annual basis, Texas residents produced about 2.36 million hospital stays at a total cost of \$15.0 billion (see Table 1). Of those hospitalizations, about 201,000 (8.5 percent) had cancer listed among the discharge diagnoses, and about 100,000 (4.2 percent of total) listed cancer as the principal diagnosis. The estimated cost of treating Texas residents with cancer was about \$1.85 billion, including \$1.05 billion for patients having cancer as the principal diagnosis. Another \$176 million was associated 13,000 hospital stays for treatment of non-residents with cancer among the discharge diagnoses.

The average length of stay was longer for cancer patients (6.5 days) when compared to patients without cancer (5.3 days). And average cost per hospitalization for those with cancer (\$9,199) was higher than for those without cancer (\$6,092). Average cost per hospitalization for those with cancer as principal diagnosis was \$10,490.

Table 1. Cancer-Related Hospitalizations and Estimated Costs among Texas Residents, FY 1998

	Number of Stays	Hospital Days	Average Days/Stay	Estimated Cost (x \$1,000)	Average Cost/Stay
Cancer among Diagnoses	201,396	1,308,272	6.5	\$1,852,574	\$9,199
Cancer as Principal Diagnosis	100,112	645,224	6.5	\$1,050,191	\$10,490
Cancer as Secondary Diagnosis	101,284	663,048	6.5	\$802,383	\$7,922
Cancer Not Present	2,159,412	11,439,289	5.3	\$13,155,014	\$6,092
All Hospital Stays	2,360,808	12,747,561	5.4	\$15,007,588	\$6,357

Notes: Cancer defined as ICDs 140-239.

Estimates annualized from discharges during January-March 1999.

Data do not include some small community hospitals having about 6 percent of hospital beds in Texas.

Findings for specific types of cancer varied (see Table 2). Cases with lung cancer among the discharge diagnoses were the most expensive (\$228 million), followed by colorectal cancer (\$161 million), prostate cancer (\$98 million), and breast cancer (\$91 million). These four types of cancer accounted for about 31 percent of the costs among those hospitalized with cancer. Hospital stays for those with colorectal and lung cancer tended to be longer than for those with other types of cancer. Stays for those with breast or prostate cancer tended to be shorter. Average cost per stay followed the same pattern, with higher averages for colorectal and lung cancers, and lower averages for breast and prostate cancers.

Table 2. Cancer-Related Hospitalizations and Estimated Costs among Texas Residents by Type of Cancer, FY 1998

	Principal or	Principal D:	Secondary
	Secondary Diagnosis	Diagnosis	Diagnosis
Any Cancer (ICD 140-239)			
Number of Stays	201,396	100,112	101,284
Patient Days	1,308,272	645,224	663,048
Average Length of Stay	6.50	6.45	6.55
Estimated Cost	\$1,852,574,000	\$1,050,191,000	\$802,383,000
Average Cost Per Stay	\$9,199	\$10,490	\$7,922
Colorectal Cancer (ICD 153-4)			
Number of Stays	13,292	8,928	4,364
Patient Days	122,808	85,272	37,536
Average Length of Stay	9.24	9.55	8.60
Estimated Cost	\$161,428,000	\$122,035,000	\$39,393,000
Average Cost Per Stay	\$12,145	\$13,669	\$9,027
Lung Cancer (ICD 162)			
Number of Stays	21,976	11,040	10,936
Patient Days	171,336	92,424	78,912
Average Length of Stay	7.80	8.37	7.22
Estimated Cost	\$228,048,000	\$136,044,000	\$92,004,000
Average Cost Per Stay	\$10,377	\$12,323	\$8,413
Breast Cancer (ICD 174)			
Number of Stays	11,084	6,900	4,184
Patient Days	53,488	27,692	25,796
Average Length of Stay	4.83	4.01	6.17
Estimated Cost	\$91,273,000	\$58,626,000	\$32,647,000
Average Cost Per Stay	\$8,235	\$8,497	\$7,803
Prostate Cancer (ICD 185)			
Number of Stays	13,192	6,708	6,484
Patient Days	73,504	30,648	42,856
Average Length of Stay	5.57	4.57	6.61
Estimated Cost	\$98,157,000	\$46,266,000	\$51,891,000
Average Cost Per Stay	\$7,441	\$6,897	\$8,003
All Other Cancers			
Number of Stays	141,852	66,536	75,316
Patient Days	887,136	409,188	477,948
Average Length of Stay	6.25	6.15	6.35
Estimated Cost	\$1,273,668,000	\$687,220,000	\$586,448,000
Average Cost Per Stay	\$8,979	\$10,329	\$7,786

Note: To avoid double-counting, when a hospital record contained more than one cancer diagnosis, the record was assigned to type of cancer according to the ordering of the diagnoses.

The age distribution of cancer patients differed according to the type of cancer (see Table 3). With the patient population stratified into 15-year age groups, the modal (most frequent) group among patients with any kind of cancer was age 60-74. However, for breast cancer, there were more patients in the age 45-59 range, and, for prostate cancer, the modal group was age 75 years and over.

Almost 59 percent of persons hospitalized with cancer were female, partly as a reflection of the nature of the elderly surviving population. Hospitalizations for colorectal cancer were about evenly divided between the sexes. A substantial majority of lung cancer patients were male. Almost 64 percent of the patients with "other" types of cancer were female.

The proportionate distribution of hospitalizations for cancer differed by ethnicity and type of cancer. For the four specific types of cancer, patients were more likely to be non-Hispanic White and Other than for the "other" types of cancer. This observation is particularly notable for lung cancer hospitalizations. Conversely, African American and Hispanic patients were less common for the four types of cancer of interest, and more common among the "other" cancer category. More precise analysis of demographic issues would consider population denominators and age distributions of the respective populations (see Appendix A for appropriate numerator details).

The demographic distribution of costs presents a similar pattern, except that costs for "other" types of cancer as not as highly concentrated among the female population (see Table 4). Details are available in Appendix B.

The primary payer for the respective cancer hospitalizations tended to differ according to type of cancer (see Table 5). For costs associated with hospitalizations of persons with any kind of cancer, 45.5 percent were covered by Medicare as primary payer, and about 40 percent were covered by private insurance. However, Medicare was primary payer for more than 90 percent of hospitalization costs for persons with colorectal cancer, and 70 percent of costs for persons with prostate cancer. For only 32 percent of costs associated with hospitalizations of persons with breast cancer was Medicare the primary payer, and these patients were more likely to rely on private insurance. No doubt these findings reflect the age distribution of the respective types of patients.

Among Texas hospitals, M.D. Anderson had the most discharges of Texas residents with cancer—about 8,612 with an estimated cost of \$142 million (see Table 6). The next three hospitals with the most resident cancer patients were in Dallas (Baylor), Houston (Methodist), and San Antonio (Southwest Texas), which together had about 14,700 discharges of Texas residents with cancer with a total cost of \$176 million. Of the 383 facilities in the database, half of the resident cancer-related discharges were from the 41 facilities serving the most cancer patients, and these accounted for 55 percent of the total cost.

Table 3. Age, Gender, and Ethnicity of Texas Resident Hospital Patients with Cancer, FY 1998

	Any Ca ICD 14		Colorecta ICD 1		Lung Cancer ICD 162		
	number	percent	number	percent	number	percent	
Age							
0-14	6,432	3.2%	12	0.1%	12	0.1%	
15-29	7,596	3.8%	92	0.7%	56	0.3%	
30-44	31,000	15.4%	620	4.7%	608	2.8%	
45-59	45,016	22.4%	2,668	20.1%	4,180	19.0%	
60-74	62,568	31.1%	5,104	38.4%	11,096		
75+	48,760	24.2%	4,796	36.1%	6,024	27.4%	
Total	201,372	100.0%	13,292	100.0%	21,976	100.0%	
Gender							
Male	83,568	41.5%	6,460	48.6%	12,412	56.5%	
Female	117,804	58.5%	6,832	51.4%	9,564	43.5%	
Total	201,372	100.0%	13,292	100.0%	21,976	100.0%	
Ethnicity		•					
White/Other	142,068	70.6%	9,812	73.8%	17,296	78.7%	
Black	25,560	12.7%	1,616	12.2%	2,392	10.9%	
Hispanic	33,744	16.8%	1,864	14.0%	2,280	10.4%	
Total	201,372	100.0%	13,292	100.0%	21,976	100.0%	
	Breast Cancer		Prostate Cancer ICD 185				
	Breast C ICD				Other (Cancers	
					Other (Cancers percent	
Age	ICD :	174	ICD	185			
Age 0-14	ICD :	174	ICD	185 percent		percent	
	ICD :	174 percent	ICD number	185 percent	number	<i>percent</i> 4.5%	
0-14	number 0	174 percent 0.0%	ICD number	185 percent 0.1%	<i>number</i> 6,392	<i>percent</i> 4.5% 5.2%	
0-14 15-29	ICD	174 percent 0.0% 0.6%	ICD number	185 percent 0.1% 0.1% 0.3%	<i>number</i> 6,392 7,372	### ### ##############################	
0-14 15-29 30-44	ICD	174 percent 0.0% 0.6% 15.1%	16 8 40	185 percent 0.1% 0.1% 0.3%	<i>number</i> 6,392 7,372 28,060	9ercent 4.5% 5.2% 19.8% 23.2%	
0-14 15-29 30-44 45-59	0 68 1,672 3,532	0.0% 0.6% 15.1% 31.9%	16 8 40 1,668	185 percent 0.1% 0.1% 0.3% 12.6% 42.7%	6,392 7,372 28,060 32,968	4.5% 5.2% 19.8% 23.2% 26.3%	
0-14 15-29 30-44 45-59 60-74	0 68 1,672 3,532 3,428	0.0% 0.6% 15.1% 31.9% 30.9%	16 8 40 1,668 5,632	185 percent 0.1% 0.1% 0.3% 12.6% 42.7%	6,392 7,372 28,060 32,968 37,320	### ### ##############################	
0-14 15-29 30-44 45-59 60-74 75+	0 68 1,672 3,532 3,428 2,384	0.0% 0.6% 15.1% 31.9% 30.9% 21.5%	16 8 40 1,668 5,632 5,828	185 percent 0.1% 0.1% 0.3% 12.6% 42.7% 44.2%	6,392 7,372 28,060 32,968 37,320 29,740	### ### ##############################	
0-14 15-29 30-44 45-59 60-74 75+ Total	0 68 1,672 3,532 3,428 2,384	0.0% 0.6% 15.1% 31.9% 30.9% 21.5%	16 8 40 1,668 5,632 5,828	185 percent 0.1% 0.1% 0.3% 12.6% 42.7% 44.2%	6,392 7,372 28,060 32,968 37,320 29,740	4.5% 5.2% 19.8% 23.2% 26.3% 21.0% 100.0%	
0-14 15-29 30-44 45-59 60-74 75+ Total Gender	0 68 1,672 3,532 3,428 2,384 11,084	0.0% 0.6% 15.1% 31.9% 30.9% 21.5% 100.0%	16 8 40 1,668 5,632 5,828 13,192	185 percent 0.1% 0.1% 0.3% 12.6% 42.7% 44.2% 100.0%	6,392 7,372 28,060 32,968 37,320 29,740 141,852	### 4.5% 5.2% 19.8% 23.2% 26.3% 21.0% 100.0% 36.3%	
0-14 15-29 30-44 45-59 60-74 75+ Total Gender Male	1CD number 0 68 1,672 3,532 3,428 2,384 11,084	0.0% 0.6% 15.1% 31.9% 30.9% 21.5% 100.0%	16 8 40 1,668 5,632 5,828 13,192	185 percent 0.1% 0.1% 0.3% 12.6% 42.7% 44.2% 100.0%	number 6,392 7,372 28,060 32,968 37,320 29,740 141,852	### ### ##############################	
0-14 15-29 30-44 45-59 60-74 75+ Total Gender Male Female Total Ethnicity	O 0 68 1,672 3,532 3,428 2,384 11,084 O 11,084	174 percent 0.0% 0.6% 15.1% 31.9% 30.9% 21.5% 100.0%	16 8 40 1,668 5,632 5,828 13,192	185 percent 0.1% 0.1% 0.3% 12.6% 42.7% 44.2% 100.0% 100.0%	number 6,392 7,372 28,060 32,968 37,320 29,740 141,852 51,516 90,336	### 4.5% 5.2% 19.8% 23.2% 26.3% 21.0% 100.0% 100.0%	
0-14 15-29 30-44 45-59 60-74 75+ Total Gender Male Female Total	0 68 1,672 3,532 3,428 2,384 11,084 0 11,084 11,084	174 percent 0.0% 0.6% 15.1% 31.9% 30.9% 21.5% 100.0% 100.0% 73.3%	16 8 40 1,668 5,632 5,828 13,192 0 13,192 9,904	185 percent 0.1% 0.1% 0.3% 12.6% 42.7% 44.2% 100.0% 100.0% 75.1%	number 6,392 7,372 28,060 32,968 37,320 29,740 141,852 51,516 90,336	### 4.5% 5.2% 19.8% 23.2% 26.3% 21.0% 100.0% 100.0%	
0-14 15-29 30-44 45-59 60-74 75+ Total Gender Male Female Total Ethnicity	0 68 1,672 3,532 3,428 2,384 11,084 11,084 11,084 8,120 1,240	174 percent 0.0% 0.6% 15.1% 31.9% 30.9% 21.5% 100.0% 100.0% 73.3% 11.2%	16 8 40 1,668 5,632 5,828 13,192 13,192 0 13,192 9,904 1,672	185 percent 0.1% 0.1% 0.3% 12.6% 42.7% 44.2% 100.0% 100.0% 75.1% 12.7%	number 6,392 7,372 28,060 32,968 37,320 29,740 141,852 51,516 90,336 141,852 96,936 18,640	### Percent 4.5% 5.2% 19.8% 23.2% 26.3% 21.0% 100.0% 68.3% 63.7% 100.0%	
0-14 15-29 30-44 45-59 60-74 75+ Total Gender Male Female Total Ethnicity White/Other	0 68 1,672 3,532 3,428 2,384 11,084 0 11,084 11,084	174 percent 0.0% 0.6% 15.1% 31.9% 30.9% 21.5% 100.0% 100.0% 73.3%	16 8 40 1,668 5,632 5,828 13,192 0 13,192 9,904	185 percent 0.1% 0.1% 0.3% 12.6% 42.7% 44.2% 100.0% 100.0% 75.1% 12.7%	number 6,392 7,372 28,060 32,968 37,320 29,740 141,852 51,516 90,336 141,852 96,936	### description of the image of	

Note: Demographic information was missing for a few individuals.

Table 4. Estimated Inpatient Hospital Costs of Cancer Patients by Age, Gender, and Ethnicity, FY 1998

	Any Cancer ICD 140-239		Colorecta ICD 1		Lung Cancer ICD 162			
	cost (x \$1,000)	percent	cost (x \$1,000)	percent	cost (x \$1,000)	percent		
Age								
0-14	63,067	3.4%	126	0.1%	126	0.1%		
15-29	70,525	3.8%	979	0.6%	1,081	0.5%		
30-44	239,821	12.9%	7,120	4.4%	7,188	3.2%		
45-59	416,351	22.5%	30,763	19.1%	44,201	19.4%		
60-74	612,876	33.1%	62,832	38.9%	115,814	50.8%		
75+	449,935	24.3%	59,610	36.9%	59,639	26.2%		
Total	1,852,575	100.0%	161,430	100.0%	228,049	100.0%		
Gender								
Male	859,019	46.4%	78,710	48.8%	128,794	56.5%		
Female	993,556	53.6%	82,720	51.2%	99,255	43.5%		
Total	1,852,575	100.0%	161,430	100.0%	228,049	100.0%		
Ethnicity								
White/Other	1,342,196	72.5%	121,572	75.3%	181,029	79.4%		
Black	218,832	11.8%	19,621	12.2%	24,716	10.8%		
Hispanic	291,547	15.7%	20,235	12.5%	22,304	9.8%		
Total	1,852,575	100.0%	161,430	100.0%	228,049	100.0%		
	Breast C ICD 1		Prostate ICD		Other Cancer			
	cost		cost		cost	,		
	$(x, \phi, 1, 0, 0, 0)$	percent		percent	(2. \$1.000)	percent		
A ==	(x \$1,000)	percent	(x \$1,000)	percent	(x \$1,000)	percent		
Age		-	(x \$1,000)			-		
0-14	0	0.0%	(x \$1,000) 84	0.1%	62,732	4.9%		
0-14 15-29	0 1,331	0.0%	(x \$1,000) 84 43	0.1%	62,732 67,089	4.9% 5.3%		
0-14 15-29 30-44	0 1,331 20,040	0.0% 1.5% 22.0%	(x \$1,000) 84 43 230	0.1% 0.0% 0.2%	62,732 67,089 205,244	4.9% 5.3% 16.1%		
0-14 15-29 30-44 45-59	0 1,331 20,040 31,334	0.0% 1.5% 22.0% 34.3%	(x \$1,000) 84 43 230 11,185	0.1% 0.0% 0.2% 11.4%	62,732 67,089 205,244 298,870	4.9% 5.3% 16.1% 23.5%		
0-14 15-29 30-44 45-59 60-74	0 1,331 20,040 31,334 22,403	0.0% 1.5% 22.0% 34.3% 24.5%	(x \$1,000) 84 43 230 11,185 40,865	0.1% 0.0% 0.2% 11.4% 41.6%	62,732 67,089 205,244 298,870 370,964	4.9% 5.3% 16.1% 23.5% 29.1%		
0-14 15-29 30-44 45-59 60-74 75+	0 1,331 20,040 31,334 22,403 16,165	0.0% 1.5% 22.0% 34.3% 24.5% 17.7%	84 43 230 11,185 40,865 45,750	0.1% 0.0% 0.2% 11.4% 41.6% 46.6%	62,732 67,089 205,244 298,870 370,964 268,771	4.9% 5.3% 16.1% 23.5% 29.1% 21.1%		
0-14 15-29 30-44 45-59 60-74 75+ Total	0 1,331 20,040 31,334 22,403	0.0% 1.5% 22.0% 34.3% 24.5%	(x \$1,000) 84 43 230 11,185 40,865	0.1% 0.0% 0.2% 11.4% 41.6%	62,732 67,089 205,244 298,870 370,964	4.9% 5.3% 16.1% 23.5% 29.1%		
0-14 15-29 30-44 45-59 60-74 75+ Total Gender	0 1,331 20,040 31,334 22,403 16,165 91,273	0.0% 1.5% 22.0% 34.3% 24.5% 17.7% 100.0%	(x \$1,000) 84 43 230 11,185 40,865 45,750 98,157	0.1% 0.0% 0.2% 11.4% 41.6% 46.6% 100.0%	62,732 67,089 205,244 298,870 370,964 268,771 1,273,670	4.9% 5.3% 16.1% 23.5% 29.1% 21.1% 100.0%		
0-14 15-29 30-44 45-59 60-74 75+ Total Gender Male	0 1,331 20,040 31,334 22,403 16,165 91,273	0.0% 1.5% 22.0% 34.3% 24.5% 17.7% 100.0%	84 43 230 11,185 40,865 45,750 98,157	0.1% 0.0% 0.2% 11.4% 41.6% 46.6% 100.0%	62,732 67,089 205,244 298,870 370,964 268,771 1,273,670	4.9% 5.3% 16.1% 23.5% 29.1% 21.1% 100.0%		
0-14 15-29 30-44 45-59 60-74 75+ Total Gender Male Female	0 1,331 20,040 31,334 22,403 16,165 91,273	0.0% 1.5% 22.0% 34.3% 24.5% 17.7% 100.0%	84 43 230 11,185 40,865 45,750 98,157 98,157	0.1% 0.0% 0.2% 11.4% 41.6% 46.6% 100.0% 100.0%	62,732 67,089 205,244 298,870 370,964 268,771 1,273,670 553,362 720,308	4.9% 5.3% 16.1% 23.5% 29.1% 21.1% 100.0% 43.4% 56.6%		
0-14 15-29 30-44 45-59 60-74 75+ Total Gender Male Female Total	0 1,331 20,040 31,334 22,403 16,165 91,273	0.0% 1.5% 22.0% 34.3% 24.5% 17.7% 100.0%	84 43 230 11,185 40,865 45,750 98,157	0.1% 0.0% 0.2% 11.4% 41.6% 46.6% 100.0%	62,732 67,089 205,244 298,870 370,964 268,771 1,273,670	4.9% 5.3% 16.1% 23.5% 29.1% 21.1% 100.0%		
0-14 15-29 30-44 45-59 60-74 75+ Total Gender Male Female Total Ethnicity	0 1,331 20,040 31,334 22,403 16,165 91,273 0 91,273 91,273	0.0% 1.5% 22.0% 34.3% 24.5% 17.7% 100.0% 100.0%	84 43 230 11,185 40,865 45,750 98,157 0 98,157	0.1% 0.0% 0.2% 11.4% 41.6% 46.6% 100.0% 100.0%	62,732 67,089 205,244 298,870 370,964 268,771 1,273,670 553,362 720,308 1,273,670	4.9% 5.3% 16.1% 23.5% 29.1% 21.1% 100.0% 43.4% 56.6% 100.0%		
0-14 15-29 30-44 45-59 60-74 75+ Total Gender Male Female Total Ethnicity White/Other	0 1,331 20,040 31,334 22,403 16,165 91,273 0 91,273 91,273	0.0% 1.5% 22.0% 34.3% 24.5% 17.7% 100.0% 100.0% 74.5%	84 43 230 11,185 40,865 45,750 98,157 0 98,157	0.1% 0.0% 0.2% 11.4% 41.6% 46.6% 100.0% 100.0% 74.8%	62,732 67,089 205,244 298,870 370,964 268,771 1,273,670 553,362 720,308 1,273,670	4.9% 5.3% 16.1% 23.5% 29.1% 21.1% 100.0% 43.4% 56.6% 100.0%		
0-14 15-29 30-44 45-59 60-74 75+ Total Gender Male Female Total Ethnicity	0 1,331 20,040 31,334 22,403 16,165 91,273 0 91,273 91,273	0.0% 1.5% 22.0% 34.3% 24.5% 17.7% 100.0% 100.0%	84 43 230 11,185 40,865 45,750 98,157 0 98,157	0.1% 0.0% 0.2% 11.4% 41.6% 46.6% 100.0% 100.0%	62,732 67,089 205,244 298,870 370,964 268,771 1,273,670 553,362 720,308 1,273,670	4.9% 5.3% 16.1% 23.5% 29.1% 21.1% 100.0% 43.4% 56.6% 100.0%		

Note: Demographic information was missing for a few individuals.

Table 5. Estimated Inpatient Hospital Costs of Cancer Patients by Age and Primary Payer, FY 1998

	Private Insurance (x \$1,000)	Medicare (x \$1,000)	Medicaid (x \$1,000)	Self-Pay (x \$1,000)	All Others (x \$1,000)	Total (x \$1,000)
Any Cancer (I	-					
Age 0-14	\$27,125	\$139	\$29,964	\$3,082	\$2,756	\$63,066
Age15-29	\$38,382	\$1,820	\$17,801	\$4,897	\$7,622	\$70,522
Age 30-44	\$171,892	\$12,210	\$24,062	\$14,535	\$17,123	\$239,822
Age 45-59	\$297,222	\$34,419	\$30,911	\$27,023	\$26,777	\$416,352
Age 60-74	\$162,575	\$396,766	\$13,839	\$15,176	\$24,520	\$612,876
Age 75+	\$38,266	\$398,389	\$1,860	\$2,699	\$8,719	\$449,933
Total	\$735,462	\$843,743	\$118,437	\$67,412	\$87,517	\$1,852,571
Percent	39.7%	45.5%	6.4%	3.6%	4.7%	100.0%
Colorectal Car	ncer (ICD 153-4)					
Age 0-14	\$126	\$0	\$0	\$0	\$0	\$126
Age15-29	\$640	\$0	\$326	\$13	\$0	\$979
Age 30-44	\$5,059	\$253	\$956	\$513	\$338	\$7,119
Age 45-59	\$21,072	\$2,482	\$2,535	\$2,567	\$2,106	\$30,762
Age 60-74	\$15,938	\$42,165	\$1,232	\$1,312	\$2,185	\$62,832
Age 75+	\$5,207	\$52,830	\$515	\$292	\$766	\$59,610
Total	\$48,042	\$97,730	\$5,564	\$4,697	\$5,395	\$107,991
Percent	44.5%	90.5%	5.2%	4.3%	5.0%	100.0%
Lung Cancer (ICD 162)		· ·			
Age 0-14	\$43	\$0	\$83	\$0	\$0	\$126
Age15-29	\$191	\$0	\$687	\$74	\$128	\$1,080
Age 30-44	\$3,638	\$538	\$1,353	\$884	\$776	\$7,189
Age 45-59	\$29,936	\$4,047	\$4,544	\$2,853	\$2,821	\$44,201
Age 60-74	\$28,790	\$75,699	\$3,179	\$3,080	\$5,065	\$115,813
Age 75+	\$5,864	\$51,506	\$385	\$455	\$1,429	\$59,639
Total	\$68,462	\$131,790	\$10,231	\$7,346	\$10,219	\$228,048
Percent	30.0%	57.8%	4.5%	3.2%	4.5%	100.0%
Breast Cancer						
Age 0-14	\$0	\$0	\$0	\$0	\$0	\$0
Age15-29	\$432	\$0	\$885	\$0	\$14	\$1,331
Age 30-44	\$15,160	\$604	\$2,032	\$1,264	\$980	\$20,040
Age 45-59	\$22,885	\$1,444	\$2,501	\$2,460	\$2,043	\$31,333
Age 60-74	\$6,723	\$13,229	\$364	\$1,036	\$1,051	\$22,403
Age 75+	\$1,747	\$13,886	\$110	\$251	\$171	\$16,165
Total	\$46,947	\$29,163	\$5,892	\$5,011	\$4,259	\$91,272
Percent	51.4%	32.0%	6.5%	5.5%	4.7%	100.0%
Prostate Cance			· ·			
Age 0-14	\$0	\$68	\$15	\$0	\$0	\$83
Age15-29	\$14	\$0	\$0	\$30	\$0	\$44
Age 30-44	\$230	\$0	\$0	\$0	\$0	\$230
Age 45-59	\$9,134	\$916	\$208	\$317	\$610	\$11,185
Age 60-74	\$11,658	\$26,612	\$387	\$582	\$1,626	\$40,865
Age 75+	\$3,409	\$41,195	\$50	\$89	\$1,008	\$45,751
Total	\$24,445	\$68,791	\$660	\$1,018	\$3,244	\$98,158
Percent	24.9%	70.1%	0.7%	1.0%	3.3%	100.0%
Other Cancers						
Age 0-14	\$26,956	\$71	\$29,866	\$3,082	\$2,756	\$62,731
Age15-29	\$37,105	\$1,820	\$15,903	\$4,780	\$7,480	\$67,088
Age 30-44	\$147,806	\$10,815	\$19,721	\$11,875	\$15,028	\$205,245
Age 45-59	\$214,194	\$25,531	\$21,123	\$18,826	\$19,196	\$298,870
Age 60-74	\$99,465	\$239,062	\$8,677	\$9,167	\$14,592	\$370,963
Age 75+	\$22,039	\$238,973	\$800	\$1,613	\$5,346	\$268,771
Total	\$547,565	\$516,272	\$96,090	\$49,343	\$64,398	\$1,273,668
Percent	43.0%	40.5%	7.5%	3.9%	5.1%	100.0%

Table 6. Top 25 Hospitals with the Most Cancer-Related Discharges of Texas Residents, Annualized Costs, FY 1998

Facility	Location	Discharges	Costs
M.D. Anderson	Houston	8,612	141,699,883
Baylor University Medical Center	Dallas	5,288	72,125,337
The Methodist Hospital	Houston	5,160	58,273,350
Southwest Texas Methodist Hospital	San Antonio	4,252	45,232,654
Harris Methodist	Ft Worth	3,368	32,399,102
Medical City Dallas Hospital	Dallas	3,360	41,334,581
Presbyterian Hospital	Dallas	3,348	39,749,100
St. Luke Episcopal	Houston	3,316	29,653,397
Univ. of Texas Medical Branch Hospital	Galveston	3,088	35,823,706
Seton Medical Center	Austin	3,044	27,973,216
Scott & White Memorial Hospital	Temple	2,980	33,310,872
Dallas County Hospital District	Dallas	2,828	20,424,852
Methodist Hospital	Lubbock	2,592	21,081,623
St Elizabeth Hospital	Beaumont	2,512	20,049,656
Memorial Hospital Southwest	Houston	2,460	23,683,918
Christus Spohn Shoreline	Corpus Christi	2,200	14,901,142
St Joseph Hospital	Houston	2,148	20,740,612
Providence Memorial Hospital	El Paso	2,136	16,911,361
Houston Northwest Medical Center	Houston	2,124	18,893,767
Trinity Mother Frances	Tyler	2,124	17,822,782
Memorial Hospital-Mem. City	Houston	2,020	13,683,212
Arlington Memorial Hospital	Arlington	1,904	14,227,700
St Paul Medical Center	Dallas	1,884	19,704,758
Hendrick Medical Center	Abilene	1,840	20,167,129
University Health System	San Antonio	1,784	19,111,245
Total		76,372	\$818,978,953
Percent of Statewide		38%	44%

Table 6 lists the 25 hospitals in Texas which, on an annualized basis, discharged the greatest numbers of patients with cancer. These 25 facilities, located in the metropolitan and large urban areas, accounted for 38 percent of the cancer-related discharges of Texas residents, and 44 percent of the associated costs.

Table 7 compares Texas residents and non-residents discharged from M.D. Anderson Hospital. Non-residents constituted a large share of the patients. Average cost for resident breast cancer patients was somewhat larger than the average for non-residents. Table 8 compares discharges where cancer was the principal diagnosis with discharges where cancer was a secondary diagnosis. In cases of colorectal, lung and "other" types of cancer, average costs were higher when the disease was the primary diagnosis. Table 9 presents findings for public health region of residence for cancer patients.

Table 7. Annualized Hospital Stays and Estimated Facility Costs for Treatment of Patients with Selected Cancers by Residency, M.D. Anderson Hospital, FY 1998

	Residents	Non-Residents	Total
Any Cancer (ICD 140-239)			
Number of Stays	8,612	5,860	14,472
Patient Days	66,156	45,624	111,780
Average Days of Stay	7.68	7.79	7.72
Estimated Cost	\$141,699,883	\$106,415,117	\$248,115,000
Average Cost Per Stay	\$16,454	\$18,160	\$17,144
Colorectal Cancer (ICD 153-4)			
Number of Stays	200	148	348
Patient Days	1628	1,160	2,788
Average Days of Stay	8.14	7.84	8.01
Estimated Cost	\$3,226,101	\$2,398,899	\$5,625,000
Average Cost Per Stay	\$16,131	\$16,209	\$16,164
Lung Cancer (ICD 162)			
Number of Stays	408	216	624
Patient Days	2,568	1,384	3,952
Average Days of Stay	6.29	6.41	6.33
Estimated Cost	\$6,985,380	\$3,937,620	\$10,923,000
Average Cost Per Stay	\$17,121	\$18,230	\$17,505
Breast Cancer (ICD 174)			
Number of Stays	216	164	380
Patient Days	1,280	928	2,208
Average Days of Stay	5.93	5.66	5.81
Estimated Cost	\$4,567,440	\$2,457,560	\$7,025,000
Average Cost Per Stay	\$21,146	\$14,985	\$18,487
Prostate Cancer (ICD 185)			
Number of Stays	300	172	472
Patient Days	1,964	1,220	3,184
Average Days of Stay	6.55	7.09	6.75
Estimated Cost	\$2,598,716	\$1,589,284	\$4,188,000
Average Cost Per Stay	\$8,662	\$9,240	\$8,873
Other Cancers			
Number of Stays	7,488	5,160	12,648
Patient Days	58,716	40,932	99,648
Average Days of Stay	7.84	7.93	7.88
Estimated Cost	\$124,322,246	\$96,031,754	\$220,354,000
Average Cost Per Stay	\$16,603	\$18,611	\$17,422

Table 8. Annualized Hospital Stays and Estimated Facility Costs for Treatment of Selected Cancers Among Texas Residents by Position of Cancer Diagnosis, M.D. Anderson Hospital, FY 1998

	Principal Diagnosis	Secondary Diagnosis	Total
Any Cancer (ICD 140-239)	Diagnosis	Diagnosis	
Number of Stays	4,064	4,548	14 472
			14,472
Patient Days	33,948	32,208	111,780
Average Days of Stay	8.35	7.08	7.72
Estimated Cost	\$85,249,857	\$56,450,026	\$248,115,000
Average Cost Per Stay	\$20,977	\$12,412	\$17,144
Colorectal Cancer (ICD 153-4)			
Number of Stays	128	72	200
Patient Days	1112	516	1,628
Average Days of Stay	8.69	7.17	8.14
Estimated Cost	\$2,242,862	\$983,240	\$3,226,101
Average Cost Per Stay	\$17,522	\$13,656	\$16,131
Lung Cancer (ICD 162)			
Number of Stays	256	152	408
Patient Days	1524	1,044	2,568
Average Days of Stay	5.95	6.87	6.29
Estimated Cost	\$5,064,236	\$1,921,144	\$6,985,380
Average Cost Per Stay	\$19,782	\$12,639	\$17,121
Breast Cancer (ICD 174)			
Number of Stays	156	60	216
Patient Days	896	384	1,280
Average Days of Stay	5.74	6.40	5.93
Estimated Cost	\$3,140,728	\$1,426,712	\$4,567,440
Average Cost Per Stay	\$20,133	\$23,779	\$21,146
Prostate Cancer (ICD 185)			·
Number of Stays	232	68	300
Patient Days	1224	740	1,964
Average Days of Stay	5.28	10.88	6.55
Estimated Cost	\$1,959,075	\$639,641	\$2,598,716
Average Cost Per Stay	\$8,444	\$9,406	\$8,662
Other Cancers	,	12,	1 - 7
Number of Stays	3292	4,196	7,488
Patient Days	29192	29,524	58,716
Average Days of Stay	8.87	7.04	7.84
Estimated Cost	\$72,842,956	\$51,479,290	\$124,322,246
Average Cost Per Stay	\$22,127	\$12,269	\$16,603

Table 9. Estimated Cancer Hospitalizations and Facility Costs by Public Health Region of Residence, Texas, 1998

Region	1	All Cancers	Colorectal	Lung	Breast	Prostate	Other
	Hospital Stays	7,180	404	640	384	424	5,328
1	Cost (x \$1,000)	\$58,488	\$4,686	\$5,866	\$2,692	\$3,146	\$42,098
	% of Total Cost	3.2%	2.9%	2.6%	3.2%	3.2%	3.3%
	Hospital Stays	6,384	432	872	240	396	4,444
2	Cost (x \$1,000)	\$60,589	\$5,658	\$8,383	\$2,059	\$2,774	\$41,715
	% of Total Cost	3.3%	3.5%	3.7%	2.4%	2.8%	3.3%
	Hospital Stays	50,700	3,320	5,508	2,728	3,012	36,132
3	Cost (x \$1,000)	\$488,346	\$43,412	\$63,018	\$23,030	\$24,735	\$334,151
	% of Total Cost	26.6%	26.9%	27.7%	27.2%	25.3%	26.4%
	Hospital Stays	11,632	1,016	1,584	600	876	7,556
4	Cost (x \$1,000)	\$105,550	\$12,336	\$16,583	\$3,909	\$6,216	\$66,506
	% of Total Cost	5.7%	7.6%	7.3%	4.6%	6.3%	5.3%
	Hospital Stays	10,852	848	1,564	600	1,072	6,768
5	Cost (x \$1,000)	\$92,888	\$9,481	\$14,845	\$3,697	\$7,355	\$57,509
	% of Total Cost	5.1%	5.9%	6.5%	4.4%	7.5%	4.5%
	Hospital Stays	47,808	3,128	5,124	2,580	2,800	34,176
6	Cost (x \$1,000)	\$474,219	\$38,979	\$55,966	\$22,536	\$21,835	\$334,902
	% of Total Cost	25.8%	24.1%	24.6%	26.6%	22.3%	26.5%
	Hospital Stays	18,936	1,260	2,072	1,104	1,244	13,256
7	Cost (x \$1,000)	\$163,322	\$15,424	\$20,167	\$7,881	\$8,937	\$110,914
	% of Total Cost	8.9%	9.5%	8.9%	9.3%	9.1%	8.8%
	Hospital Stays	18,460	1,080	1,816	1,160	1,284	13,120
8	Cost (x \$1,000)	\$160,769	\$12,544	\$17,983	\$8,464	\$8,392	\$113,385
	% of Total Cost	8.8%	7.8%	7.9%	10.0%	8.6%	9.0%
	Hospital Stays	5,500	280	588	228	392	4,012
9	Cost (x \$1,000)	\$49,367	\$3,500	\$5,983	\$1,766	\$3,006	\$35,111
	% of Total Cost	2.7%	2.2%	2.6%	2.1%	3.1%	2.8%
	Hospital Stays	7,052	388	588	384	500	5,192
10	Cost (x \$1,000)	\$60,740	\$4,808	\$5,531	\$2,578	\$4,221	\$43,601
	% of Total Cost	3.3%	3.0%	2.4%	3.0%	4.3%	3.4%
	Hospital Stays	16,284	1,120	1,588	988	1,164	11,424
11	Cost (x \$1,000)	\$122,558	\$10,840	\$13,390	\$6,013	\$7,313	\$85,002
	% of Total Cost	6.7%	6.7%	5.9%	7.1%	7.5%	6.7%
	Hospital Stays	200,788	13,276	21,944	10,996	13,164	141,408
Total	Cost (x \$1,000)	\$1,836,836	\$161,668	\$227,715	\$84,625	\$97,930	\$1,264,894
	% of Total Cost	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Totals exclude hospitalizations with place of Texas residence unknown.

Discussion

This report is based on discharges during the first calendar quarter of 1999. All figures are annualized and represented as covering fiscal year 1998. Clearly, admissions and discharges change over time at the various hospitals, and it is likely that individual facilities had higher or lower counts of the number of discharges during that period. Also, while it is possible that the calendar quarter of study was not representative, it seems unlikely that cancer admissions follow any seasonal pattern.

Also, a number of small community hospitals, representing 6 percent of the civilian hospital beds in Texas, did not participate in the survey. We do not believe it appropriate to inflate the figures to account for the missing beds, as we believe that those facilities had relatively few cancer patients. Of greater concern is the absence of information on military and veterans' hospitals, which do serve a large number of Texans.

Most of the tables in this report include discharges with cancer as either principal or secondary diagnosis, without distinguishing between the two types of discharges. Certainly, some of the "secondary" cases were hospitalized for reasons other than cancer, and allowance should be made for hospitalizations of persons with cancer which would have taken place even in the absence of the cancer. However, exclusion of cases where cancer was a secondary diagnosis would result in even greater error in the opposite direction. Many discharges listed a principal diagnosis other than cancer, but which is nevertheless due to cancer or substantially complicated by cancer. There are also probably a smaller number of discharges in which the underlying cause of admission was cancer but it was not listed among the diagnoses.

The financial figures presented are not charges, but estimates of costs. The cost estimates are, for the most part, based on Medicaid payment policies and the DRGs for the respective hospitalizations. While Medicaid payment levels may differ from costs, they are at least in principle tied to costs for each hospital. We made no adjustments in the Medicaid rates for additional payments to disproportionate share hospitals. But on the other hand, we attributed these costs to all discharged patients, whether they could pay or not. Individual hospitals that develop cost estimates using alternative methods will obtain different results.

References

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Appendix A Ethnicity, Gender, and Age of Hospital Patients with Cancer, Texas Residents, FY 1998

	И	hite/Othe	er .		Black			Hispanio	c		Total	
	Male	Female	Subtotal	Male	Female	Subtotal	Male	Female	Subtotal	Male	Female	Subtotal
Any Cancer (IC	CD 140-23	39)		il de la companya de				•		•		
Age 0-14	1,868	1,644	3,512	304	280	584	1,196	1,140	2,336	3,368	3,064	6,432
Age15-29	1,512	2,480	3,992	376	936	1,312	952	1,340	2,292	2,840	4,756	7,596
Age 30-44	3,684	14,288	17,972	824	5,484	6,308	1,440	5,280	,	5,948	25,052	31,000
Age 45-59	11,124	20,004	31,128	2,240	3,696	5,936	2,684	5,268	7,952	16,048		45,016
Age 60-74	24,348	22,752	47,100	3,064	3,592	6,656	4,384	4,428	8,812	31,796	,	62,568
Age 75+	18,488	19,876	38,364	2,136	2,628	4,764	2,944	2,688	5,632	23,568		48,760
Total	61,024	81,044		8,944	16,616	25,560	13,600	20,144	33,744	83,568	,	,
Colorectal Cancer (ICD 153-4)												
Age 0-14	4	8	12	0	0	0	0	0	0	4	8	12
Age15-29	24	40	64	8	0	8	8	12	20	40	52	92
Age 30-44	216	148	364	64	36	100	80	76	156	360		620
Age 45-59	816	864	1,680	268	196	464	312	212	524	1,396		2,668
Age 60-74	2,060	1,820	3,880	252	300	552	376	296		2,688	,	,
Age 75+	1,552	2,260	3,812	160	332	492	260	232	492	1,972	2,824	4,796
Total	4,672	5,140	9,812	752	864	1,616	1,036	828		6,460		13,292
Lung Cancer (I		2,110	>,012	,	001	1,010	1,000	020	1,001	0,100	0,002	10,272
Age 0-14	4	4	8	4	0	4	0	0	0	8	4	12
Age15-29	12	4	16	4	12	16	8	16		24	32	56
Age 30-44	240	168	408	104	24	128	68	4	72	412	196	
Age 45-59	1,628	1,508	3,136	348	264	612	284	148	432	2,260		
Age 60-74	4,824	4,068	8,892	688	480	1,168	712	316		6,232	4,864	11,096
Age 75+	2,752	2,084	4,836	280	184	464	444	280		3,476	,	,
Total	9,460	7,836	17,296	1,428	964	2,392	1,516	764	2,280	12,412		21,976
Breast Cancer (17,270	1,120	70.	2,072	1,010	701	2,200	12,112	,,,,,,	=1,>70
Age 0-14	0	0	0	0	0	0	0	0	0	0	0	0
Age15-29	0	32	32	0	4	4	0	32	32	0		68
Age 30-44	0	1,048	1,048	0	276	276	0	348	348	0		1,672
Age 45-59	0	2,400	2,400	0	452	452	0	680	680	0	,	3,532
Age 60-74	0	2,640	2,640	0	288	288	0	500	500	0	- ,	3,428
Age 75+	0	2,000	2,000	0	220	220	0	164	164	0		2,384
Total	0	8,120	8,120	0	1,240	1,240	0	1,724	1,724	0		,
Prostate Cancer	r (ICD 18				,			,				
Age 0-14	8	0	8	8	0	8	0	0	0	16	0	16
Age15-29	8	0	8	0	0	0	0	0	0	8	0	8
Age 30-44	8	0	8	24	0	24	8	0	8	40	0	40
Age 45-59	1,260	0	1,260	212	0	212	196	0	196	1,668	0	
Age 60-74	4,184	0	4,184	652	0	652	796	0		5,632	0	,
Age 75+	4,436	0		776	0		616				_	- ,
Total	9,904	0	9,904	1,672	0		1,616					,
Other Cancers	. /		. ,	,		,~· -	,==0		-,0	- ,		
Age 0-14	1,852	1,632	3,484	292	280	572	1,196	1,140	2,336	3,340	3,052	6,392
Age15-29	1,468	2,404	3,872	364	920	1,284	936	1,280				
Age 30-44	3,220	12,924	16,144	632	5,148	5,780	1,284	4,852	,			
Age 45-59	7,420	15,232	22,652	1,412	2,784	4,196	1,892	4,228				
_	13,280	14,224	27,504	1,472	2,524	3,996	2,500	3,316	- , -	- , -	,	- ,
Age 60-74										- · · · · ·		
Age 60-74 Age 75+	9,748	13,532	23,280	920	1,892	2,812	1,624	2,012				

Notes: Raw data contained two cases of females with prostate cancer who were re-classified as male. Raw data total for lung cancer, males ages 60-74, contained two cases of ethnicity unknown. Raw data total for other cancers, males ages 60-74, contained one case of ethnicity unknown. Raw data total for other cancers, females ages 75+, contained three cases of ethnicity unknown. Persons hospitalized more than once are counted for each hospitalization.

Appendix B

Estimated Inpatient Costs for Persons with Cancer by Ethnicity, Gender, and Age, FY 1998

		White/Other		Black			
	Male	Female	Subtotal	Male	Female	Subtotal	
Any Cancer (IC:	D 140-239)						
Age 0-14	\$17,284,000	\$14,306,000	\$31,590,000	\$1,836,000	\$3,738,000	\$5,574,000	
Age15-29	\$18,651,000	\$19,233,000	\$37,884,000	\$3,921,000		\$10,041,000	
Age 30-44	\$45,012,000	\$103,309,000	\$148,321,000	\$8,862,000		\$41,770,000	
Age 45-59	\$128,900,000	\$169,720,000	\$298,620,000	\$23,290,000	\$27,904,000	\$51,194,000	
Age 60-74	\$250,168,000	\$217,280,000	\$467,448,000	\$31,340,000	\$34,820,000	\$66,160,000	
Age 75+	\$174,821,000	\$183,512,000	\$358,333,000	\$19,887,000		\$44,093,000	
Total	\$634,836,000	\$707,360,000	\$1,342,196,000	\$89,136,000		\$218,832,000	
Colorectal Canc				. , ,	. , ,		
Age 0-14	\$36,000	\$90,000	\$126,000	\$0	\$0	\$0	
Age15-29	\$308,000	\$308,000	\$616,000	\$132,000	\$0	\$132,000	
Age 30-44	\$2,722,000	\$1,820,000	\$4,542,000	\$609,000	\$373,000	\$982,000	
Age 45-59	\$10,221,000	\$10,116,000	\$20,337,000	\$2,900,000	\$2,173,000	\$5,073,000	
Age 60-74	\$25,740,000	\$21,933,000	\$47,673,000	\$3,255,000	\$4,076,000	\$7,331,000	
Age 75+	\$19,674,000	\$28,604,000	\$48,278,000	\$2,109,000		\$6,103,000	
Total	\$58,701,000	\$62,871,000	\$121,572,000	\$9,005,000	\$10,616,000	\$19,621,000	
Lung Cancer (IC	. , ,	. , , ,	. , ,	. , ,	, , ,	. , , ,	
Age 0-14	\$26,000	\$17,000	\$43,000	\$83,000	\$0	\$83,000	
Age15-29	\$161,000	\$23,000	\$184,000	\$20,000		\$206,000	
Age 30-44	\$3,434,000	\$1,787,000	\$5,221,000	\$940,000		\$1,381,000	
Age 45-59	\$17,787,000	\$16,070,000	\$33,857,000	\$3,678,000		\$6,465,000	
Age 60-74	\$50,774,000	\$42,670,000	\$93,444,000	\$7,500,000	\$4,856,000	\$12,356,000	
Age 75+	\$27,828,000	\$20,452,000	\$48,280,000	\$2,605,000		\$4,225,000	
Total	\$100,010,000	\$81,019,000	\$181,029,000	\$14,826,000	\$9,890,000	\$24,716,000	
Breast Cancer (ICD 174)						
Age 0-14	\$0	\$0	\$0	\$0	\$0	\$0	
Age15-29	\$0	\$668,000	\$668,000	\$0	\$14,000	\$14,000	
Age 30-44	\$0	\$13,545,000	\$13,545,000	\$0	\$3,417,000	\$3,417,000	
Age 45-59	\$0	\$22,648,000	\$22,648,000	\$0	\$2,986,000	\$2,986,000	
Age 60-74	\$0	\$17,364,000	\$17,364,000	\$0	\$2,054,000	\$2,054,000	
Age 75+	\$0	\$13,756,000	\$13,756,000	\$0	\$1,518,000	\$1,518,000	
Total	\$0	\$67,981,000	\$67,981,000	\$0	\$9,989,000	\$9,989,000	
Prostate Cancer	(ICD 185)						
Age 0-14	\$68,000	\$0	\$68,000	\$15,000	\$0	\$15,000	
Age15-29	\$43,000	\$0	\$43,000	\$0	\$0	\$0	
Age 30-44	\$38,000	\$0	\$38,000	\$131,000	\$0	\$131,000	
Age 45-59	\$8,190,000	\$0	\$8,190,000	\$1,477,000	\$0	\$1,477,000	
Age 60-74	\$30,034,000	\$0	\$30,034,000	\$5,213,000	\$0	\$5,213,000	
Age 75+	\$35,018,000	\$0	\$35,018,000	\$6,478,000	\$0	\$6,478,000	
Total	\$73,391,000	\$0	\$73,391,000	\$13,314,000	\$0	\$13,314,000	
Other Cancers							
Age 0-14	\$17,154,000	\$14,199,000	\$31,353,000	\$1,738,000	\$3,738,000	\$5,476,000	
Age15-29	\$18,139,000	\$18,234,000	\$36,373,000	\$3,769,000	\$5,920,000	\$9,689,000	
Age 30-44	\$38,818,000	\$86,157,000	\$124,975,000	\$7,182,000		\$35,859,000	
Age 45-59	\$92,702,000	\$120,886,000	\$213,588,000	\$15,235,000	\$19,958,000	\$35,193,000	
Age 60-74	\$143,620,000	\$135,313,000	\$278,933,000	\$15,372,000	\$23,834,000	\$39,206,000	
Age 75+	\$92,301,000	\$120,700,000	\$213,001,000	\$8,695,000		\$25,769,000	
Total	\$402,734,000	\$495,489,000	\$898,223,000	\$51,991,000		\$151,192,000	

Notes: Raw data contained 2 cases of females with prostate cancer who were re-classified as male.

Raw data total for lung cancer, males ages 60-74, contained 2 cases ethnicity unknown.

Raw data total for other cancers, males ages 60-74, contained 1 case ethnicity unknown.

Raw data total for other cancers, females ages 75+, contained 3 cases ethnicity unknown.

Appendix B, continued

	Hispanic			Total		
	Male	Female	Subtotal	Male	Female	Subtotal
Any Cancer (IC	D 140-239)					
Age 0-14	\$14,330,000	\$11,573,000	\$25,903,000	\$33,450,000	\$29,617,000	\$63,067,000
Age15-29	\$12,054,000	\$10,546,000	\$22,600,000	\$34,626,000	\$35,899,000	\$70,525,000
Age 30-44	\$16,299,000	\$33,431,000	\$49,730,000	\$70,173,000	\$169,648,000	\$239,821,000
Age 45-59	\$26,853,000	\$39,684,000	\$66,537,000	\$179,043,000	\$237,308,000	\$416,351,000
Age 60-74	\$40,644,000	\$38,624,000	\$79,268,000	\$322,152,000	\$290,724,000	\$612,876,000
Age 75+	\$24,867,000	\$22,642,000	\$47,509,000	\$219,575,000	\$230,360,000	\$449,935,000
Total	\$135,047,000	\$156,500,000	\$291,547,000	\$859,019,000	\$993,556,000	\$1,852,575,000
Colorectal Canc	er (ICD 153-4)					
Age 0-14	\$0	\$0	\$0	\$36,000	\$90,000	\$126,000
Age15-29	\$105,000	\$127,000	\$232,000	\$545,000	\$434,000	\$979,000
Age 30-44	\$909,000	\$686,000	\$1,595,000	\$4,241,000	\$2,879,000	\$7,120,000
Age 45-59	\$3,191,000	\$2,162,000	\$5,353,000	\$16,312,000	\$14,451,000	\$30,763,000
Age 60-74	\$4,154,000	\$3,673,000	\$7,827,000	\$33,149,000	\$29,683,000	\$62,832,000
Age 75+	\$2,644,000	\$2,584,000	\$5,228,000	\$24,427,000	\$35,183,000	\$59,610,000
Total	\$11,003,000	\$9,232,000	\$20,235,000	\$78,710,000	\$82,720,000	\$161,430,000
Lung Cancer (IC	CD 162)		, ,		, ,	
Age 0-14	\$0	\$0	\$0	\$109,000	\$17,000	\$126,000
Age15-29	\$46,000	\$646,000	\$692,000	\$227,000	\$854,000	\$1,081,000
Age 30-44	\$556,000	\$30,000	\$586,000	\$4,930,000	\$2,258,000	\$7,188,000
Age 45-59	\$2,516,000	\$1,362,000	\$3,878,000	\$23,981,000	\$20,220,000	\$44,201,000
Age 60-74	\$6,356,000	\$3,658,000	\$10,014,000	\$64,630,000	\$51,184,000	\$115,814,000
Age 75+	\$4,484,000	\$2,650,000	\$7,134,000	\$34,917,000	\$24,722,000	\$59,639,000
Total	\$13,958,000	\$8,346,000	\$22,304,000	\$128,794,000	\$99,255,000	\$228,049,000
Breast Cancer (1	(CD 174)	, ,		, ,		
Age 0-14	\$0	\$0	\$0	\$0	\$0	\$0
Age15-29	\$0	\$649,000	\$649,000	\$0	\$1,331,000	\$1,331,000
Age 30-44	\$0	\$3,078,000	\$3,078,000	\$0	\$20,040,000	\$20,040,000
Age 45-59	\$0	\$5,700,000	\$5,700,000	\$0	\$31,334,000	\$31,334,000
Age 60-74	\$0	\$2,985,000	\$2,985,000	\$0	\$22,403,000	\$22,403,000
Age 75+	\$0	\$891,000	\$891,000	\$0	\$16,165,000	\$16,165,000
Total	\$0	\$13,303,000	\$13,303,000	\$0	\$91,273,000	\$91,273,000
Prostate Cancer	(ICD 185)					
Age 0-14	\$0	\$0	\$0	\$84,000	\$0	\$84,000
Age15-29	\$0	\$0	\$0	\$43,000	\$0	\$43,000
Age 30-44	\$60,000	\$0	\$60,000	\$230,000	\$0	\$230,000
Age 45-59	\$1,518,000	\$0	\$1,518,000	\$11,185,000	\$0	\$11,185,000
Age 60-74	\$5,617,000	\$0	\$5,617,000	\$40,865,000	\$0	\$40,865,000
Age 75+	\$4,255,000	\$0	\$4,255,000	\$45,750,000	\$0	\$45,750,000
Total	\$11,450,000	\$0	\$11,450,000	\$98,157,000	\$0	\$98,157,000
Other Cancers		÷				
Age 0-14	\$14,330,000	\$11,573,000	\$25,903,000	\$33,223,000	\$29,509,000	\$62,732,000
Age15-29	\$11,903,000	\$9,124,000	\$21,027,000	\$33,811,000	\$33,278,000	\$67,089,000
Age 30-44	\$14,774,000	\$29,637,000	\$44,411,000	\$60,773,000	\$144,471,000	\$205,244,000
Age 45-59	\$19,628,000	\$30,460,000	\$50,088,000	\$127,566,000	\$171,304,000	\$298,870,000
Age 60-74	\$24,517,000	\$28,308,000	\$52,825,000	\$183,509,000	\$187,455,000	\$370,964,000
Age 75+	\$13,484,000	\$16,517,000	\$30,001,000	\$114,480,000	\$154,291,000	\$268,771,000
Total	\$98,636,000	\$125,619,000	\$224,255,000	\$553,362,000	\$720,308,000	\$1,273,670,000

Notes: Raw data contained 2 cases of females with prostate cancer who were re-classified as male.

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Raw data total for other cancers, males ages 60-74, contained 1 case ethnicity unknown. Raw data total for other cancers, females ages 75+, contained 3 cases ethnicity unknown.